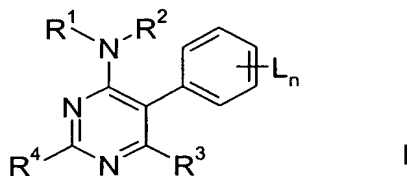


We claim:

1. A 2-substituted pyrimidine of the formula I



in which the index and the substituents are as defined below:

n is an integer from 1 to 5;

L is halogen, cyano, cyanato (OCN), C₁-C₈-alkyl, C₂-C₈-alkenyl, C₂-C₈-alkynyl, C₁-C₆-alkoxy, C₂-C₈-alkenyloxy, C₂-C₈-alkynyloxy, C₃-C₆-cycloalkyl, C₄-C₆-cycloalkenyl, C₃-C₆-cycloalkyloxy, C₄-C₆-cycloalkenyloxy, nitro, -C(=O)-A, -C(=O)-O-A, -C(=O)-N(A')A, C(A')(=N-OA), N(A')A, N(A')-C(=O)-A, N(A'')-C(=O)-N(A')A, S(=O)_m-A, S(=O)_m-O-A or S(=O)_m-N(A')A,

m is 0, 1 or 2;

A, A', A'' independently of one another are hydrogen, C₁-C₆-alkyl, C₂-C₆-alkenyl, C₂-C₆-alkynyl, C₃-C₈-cycloalkyl, C₃-C₈-cycloalkenyl, phenyl, where the organic radicals may be partially or fully halogenated or may be substituted by nitro, cyanato, cyano or C₁-C₄-alkoxy; or A and A' together with the atoms to which they are attached are a five- or six-membered saturated, partially unsaturated or aromatic heterocycle which contains one to four heteroatoms from the group consisting of O, N and S;

where the aliphatic groups of the radical definitions of L for their part may be partially or fully halogenated or may carry one to four groups R^u;

R^u is cyano, C₁-C₆-alkoxy, C₃-C₆-cycloalkyl, C₂-C₈-alkenyloxy, C₂-C₈-alkynyloxy, C₄-C₆-cycloalkenyl, C₃-C₆-cycloalkyloxy, C₄-C₆-cycloalkenyloxy, -C(=O)-A, -C(=O)-O-A, -C(=O)-N(A')A, C(A')(=N-OA), N(A')A, N(A')-C(=O)-A, N(A'')-C(=O)-N(A')A, S(=O)_m-A, S(=O)_m-O-A or S(=O)_m-N(A')A;

R^1, R^2 independently of one another are C_1 - C_6 -alkyl, C_2 - C_6 -alkenyl, C_2 - C_6 -alkynyl, C_3 - C_6 -cycloalkyl, C_3 - C_6 -halocycloalkyl, where the aliphatic group of the radical definitions of R^1 and R^2 for their part may be partially or fully halogenated or may carry one to four groups R^y :

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R^y is cyano, C_3 - C_6 -cycloalkyl, C_4 - C_6 -cycloalkenyl, hydroxyl, C_1 - C_6 -alkoxy, C_2 - C_6 -alkenyloxy, C_2 - C_6 -alkynyloxy, C_3 - C_6 -cycloalkyloxy, C_4 - C_6 -cycloalkenyloxy, C_1 - C_6 -alkylthio, $-C(=O)-A$, $-C(=O)-O-A$, $-C(=O)-N(A')A$, $C(A')(=N-OA)$, $N(A')A$, $N(A')-C(=O)-A$, $N(A'')-C(=O)-N(A')A$, $S(=O)_m-A$, $S(=O)_m-O-A$ or $S(=O)_m-N(A')A$ or phenyl, where the phenyl moiety may carry one to three radicals selected from the group consisting of: halogen, C_1 - C_6 -alkyl, C_2 - C_6 -alkenyl, C_2 - C_6 -alkynyl, C_3 - C_6 -cycloalkyl, C_1 - C_6 -haloalkyl, C_1 - C_6 -alkoxy, cyano, nitro, $-C(=O)-A$, $-C(=O)-O-A$, $-C(=O)-N(A')A$, $C(A')(=N-OA)$, $N(A')A$;

R^2 may additionally be hydrogen;

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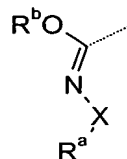
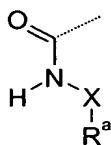
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R^1 and R^2 may also, together with the nitrogen atom to which they are attached, form a saturated or unsaturated five- or six-membered ring which may be interrupted by an ether ($-O-$), carbonyl ($C=O$), thio ($-S-$), sulfoxyl ($-S[=O]-$) or sulfenyl ($-SO_2-$) or a further amino ($-N(R^a)$) group, where R^a is hydrogen or C_1 - C_6 -alkyl, and/or may contain one or more substituents from the group consisting of halogen, C_1 - C_6 -alkyl, C_1 - C_6 -haloalkyl and oxy- C_1 - C_3 -alkyleneoxy;

30

R^3 is halogen, cyano, C_1 - C_4 -alkyl, C_2 - C_4 -alkenyl, C_2 - C_4 -alkynyl, C_3 - C_6 -cycloalkyl, C_1 - C_4 -alkoxy, C_3 - C_4 -alkenyloxy, C_3 - C_4 -alkynyloxy, C_1 - C_6 -alkylthio, di- $(C_1$ - C_6 -alkyl)amino or C_1 - C_6 -alkylamino, where the alkyl, alkenyl and alkynyl radicals of R^3 may be substituted by halogen, cyano, nitro, C_1 - C_2 -alkoxy or C_1 - C_4 -alkoxycarbonyl;

R^4 corresponds to one of the formulae



where

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- X is a direct bond, $-(C=O)-$, $-(C=O)-NH-$, $-(C=O)-O-$, $-O-$, $-NR^c-$, $-CH_2O-(C=O)-$, $-C=C-(C=O)-$, where in each case the left moiety is attached to the nitrogen atom;
- 5 R^a is hydrogen, C_1-C_6 -alkyl, C_2-C_8 -alkenyl, C_2-C_8 -alkynyl or benzyl;
- R^b is hydrogen, C_1-C_6 -alkyl, C_2-C_6 -alkenyl or C_2-C_8 -alkynyl;
- 10 R^c is hydrogen, C_1-C_6 -alkyl, C_2-C_6 -alkenyl, C_2-C_8 -alkynyl, benzyl or C_1-C_6 -acyl,
where the aliphatic, alicyclic or aromatic groups of the radical definitions of R^a , R^b and/or R^c for their part may carry one to four groups R^w :
- 15 R^w is halogen, cyano, OR^x , NHR^x , SR^x , C_1-C_6 -alkyl, C_2-C_6 -alkenyl, C_2-C_6 -alkynyl, C_1-C_6 -alkoxy, C_1-C_4 -alkoxycarbonyl, C_1-C_4 -acylamino, [1,3]dioxolane- C_1-C_4 -alkyl, [1,3]dioxane- C_1-C_4 -alkyl, where
- R^x is hydrogen, C_1-C_6 -alkyl, C_2-C_8 -alkenyl, C_2-C_8 -alkynyl or benzyl.
- 20 2. The 2-substituted pyrimidine of the formula 1 as claimed in claim 1 in which the index and the substituents are as defined below:
- n is an integer from 1 to 3, where at least one substituent L is located in the ortho-position on the phenyl ring;
- 25 L is halogen, cyano, methyl, methoxy, $-C(=O)-O-A$, $-C(=O)-N(A')A$, $C(A')(=N-OA)$, $N(A')A$, $N(A')-C(=O)-A$,
- 30 A, A' independently of one another are hydrogen, C_1-C_6 -alkyl, C_2-C_6 -alkenyl, C_2-C_6 -alkynyl, phenyl, where the organic radicals may be partially or fully halogenated or may be substituted by C_1-C_4 -alkoxy; or A and A' together with the atoms to which they are attached are a five- or six-membered saturated heterocycle which contains one or two heteroatoms from the group consisting of O, N and S;
- 35 where the aliphatic groups of the radical definitions of L for their part may be partially or fully halogenated;
- 40 R^1, R^2 independently of one another are C_1-C_6 -alkyl, C_2-C_6 -alkenyl, C_2-C_6 -alkynyl, C_1-C_6 -haloalkyl, C_2-C_6 -haloalkenyl or C_2-C_6 -haloalkynyl;

R^2 may additionally be hydrogen;

R^1 and R^2 may also, together with the nitrogen atom to which they are attached, form a saturated or unsaturated five- or six-membered ring which may be interrupted by an ether ($-O-$) or a further amino ($-N(R^a)$) group, where R^a is hydrogen or C_1 - C_6 -alkyl, and/or may contain one or more substituents from the group consisting of halogen, C_1 - C_6 -alkyl, C_1 - C_6 -haloalkyl and oxy- C_1 - C_3 -alkyleneoxy;

R^3 is halogen, cyano, C_1 - C_4 -alkyl, C_1 - C_4 -alkoxy or C_1 - C_4 -haloalkyl;

R^4 corresponds to one of the formulae



where

X is a direct bond, $-(C=O)-$, $-(C=O)-NH-$, $-(C=O)-O-$, $-O-$, $-NR^c-$, where in each case the left moiety is attached to the nitrogen atom;

R^a is hydrogen, methyl, allyl or propargyl;

R^b is hydrogen, C_1 - C_4 -alkyl, allyl or propargyl;

R^c is hydrogen, methyl or C_1 - C_4 -acyl,

where the aliphatic groups of the radical definitions of R^a , R^b and/or R^c for their part may carry one or two groups R^w :

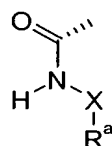
R^w is halogen, OR^x , NHR^x , C_1 - C_6 -alkyl, C_1 - C_4 -alkoxycarbonyl, C_1 - C_4 -acylamino, [1,3]dioxolane- C_1 - C_4 -alkyl, [1,3]dioxane- C_1 - C_4 -alkyl, where

R^x is hydrogen, methyl, allyl or propargyl.

3. The 2-substituted pyrimidine as claimed in claim 1 in which R^3 is chlorine, cyano, methyl or methoxy.

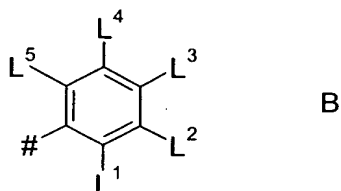
4. The 2-substituted pyrimidine as claimed in claim 1 in which R^4 corresponds to a formula

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where X is a direct bond, -O- or -(C=O)-O-, and R^a is hydrogen or C₁-C₆-alkyl.

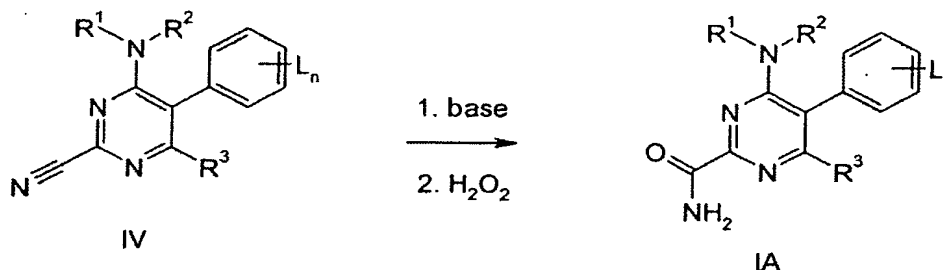
5. The 2-substituted pyrimidine as claimed in any of claims 1 to 6 in which the phenyl group substituted by L_n is the group B



where # is the point of attachment to the pyrimidine skeleton and

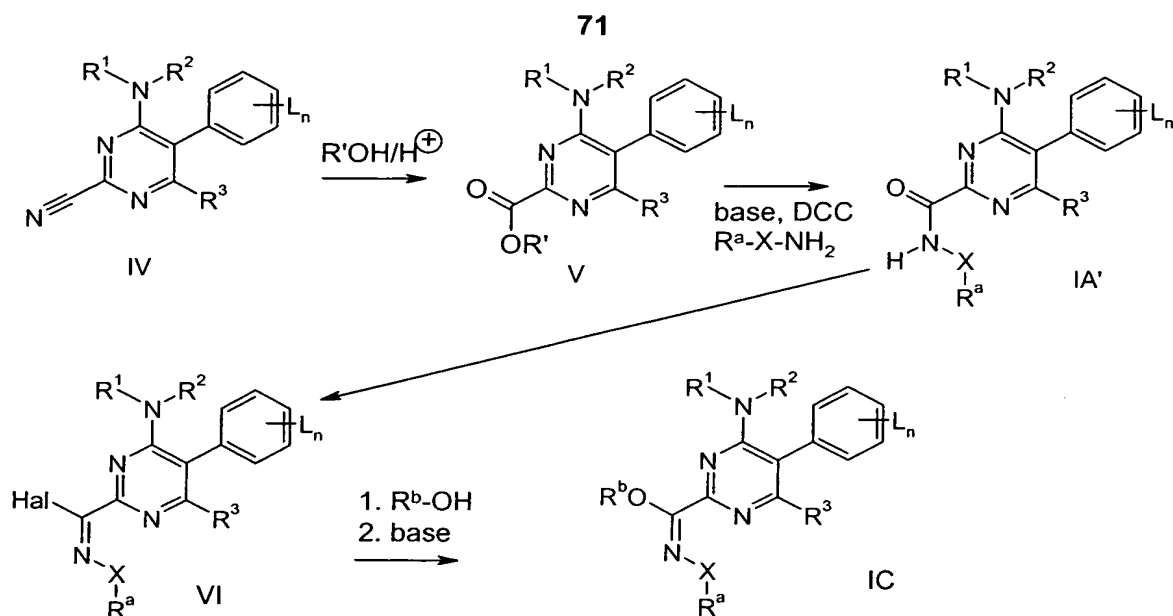
- L¹ is fluorine, chlorine, CH₃ or CF₃;
 L², L⁴ independently of one another are hydrogen, CH₃ or fluorine;
 L³ is hydrogen, fluorine, chlorine, cyano, CH₃, SCH₃, OCH₃, SO₂CH₃, NH-C(=O)CH₃, N(CH₃)-C(=O)CH₃ or COOCH₃ and
 L⁵ is hydrogen, fluorine, chlorine or CH₃.

6. A process for preparing the compounds IA by hydrolysis



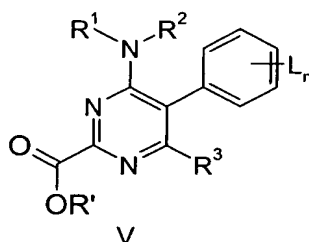
- of the nitriles of the formula IV, where the substituents R¹, R², R³ and L and the index n are as defined in claim 1, which comprises carrying out the hydrolysis in the presence of a base and of hydrogen peroxide.

7. A process for preparing the compounds IA' and IC according to the invention where the substituents L_n, R¹, R², R³, X, R^a and R^b are as defined in claim 1, which process uses nitriles of the formula IV



which are converted with alcohols of the formula $\text{R}'\text{OH}$, where R' is $\text{C}_1\text{-C}_8\text{-alkyl}$, $\text{C}_2\text{-C}_8\text{-alkenyl}$, $\text{C}_2\text{-C}_8\text{-alkynyl}$ or $\text{C}_3\text{-C}_6\text{-cycloalkyl}$, where the radicals alkyl, alkenyl and alkynyl may be partially or fully halogenated and may carry one to three groups R^v , into the esters of the formula V, which are then, using amines $\text{R}^a\text{-X-NH}_2$ and added dehydrating agents, converted into the amides IA' and further, in the presence of carbon tetrahalide and triarylphosphine, into the imine halides of the formula VI and finally, with alcohols of the formula R^bOH and bases, into the imino ethers of the formula IC.

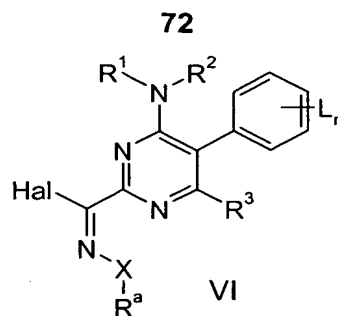
8. An ester of the formula V



in which the substituents R^1 , R^2 , R^3 and L_n are as defined in claim 1 and R' is $\text{C}_1\text{-C}_8\text{-alkyl}$, $\text{C}_2\text{-C}_8\text{-alkenyl}$, $\text{C}_2\text{-C}_8\text{-alkynyl}$ or $\text{C}_3\text{-C}_6\text{-cycloalkyl}$, where the radicals alkyl, alkenyl and alkynyl may be partially or fully halogenated and may carry one to three groups R^v .

9. The ester as claimed in claim 8 where R' is isopropyl.

10. An imine halide of the formula IV



where the substituents L_n , R^1 , R^2 , R^3 , X and R^a are as defined in claim 1 and Hal is fluorine, chlorine, bromine or iodine.

- 5 11. A pesticide which comprises a solid or liquid carrier and a compound of the formula I as claimed in claim 1.
12. A pesticide which comprises a solid or liquid carrier and a compound of the formula V as claimed in either of claims 8 and 9.
- 10 13. A method for controlling phytopathogenic harmful fungi, which comprises treating the fungi or the materials, plants, the soil or the seeds to be protected against fungal attack with an effective amount of a compound of the formula I as claimed in claim 1.
- 15 14. A method for controlling phytopathogenic harmful fungi, which comprises treating the fungi or the materials, plants, the soil or the seeds to be protected against fungal attack with an effective amount of a compound of the formula V as claimed in either of claims 8 and 9.

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